UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,988	09/19/2003	Ramakrishnan Venkata Subramanian	14580-030001	5381

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EXAMINER
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ART UNIT	PAPER NUMBER
2619	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 December 2007</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-3 and 6</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-3 and 6</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This office action is in response to the amendment filed on 12/03/2007. Claims 4 and 5

have been cancelled. Claims 1-3 and 6 are pending in the instant application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
art are such that the subject matter as a whole would have been obvious at the time the invention was made
to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

3.   Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang

et al (US 5289470), hereinafter referred to as Chang, in view of Bremer et al (US

6032190), hereinafter referred to as Bremer.

        Re claim 1, Chang discloses a network switch with a plurality of network

interfaces associated with buffers (*a data switch having a plurality of ports being*

associated with one or more queues for data packets, column 3, lines 63-64), a network

connectivity for connecting network interfaces to a plurality of networks based on a

packet type such as FDDI, Ethernet and Token Ring (*a switching fabric for transferring*

data packets received at one of the ports to another of the ports specified by a header of

the data packet, column 3, lines 65-67), and a memory partitioned into sets of buffers (*a*

memory divided into packet buffers, column 4, lines 39-41). Chang discloses comparing

the size of the packet to be stored with the buffer size (*a control unit for determining*

whether a data packet to be stored in one of the queues meets a criterion for efficient

storage in the packet buffers, column 5, lines 40-45) and storing exceeded portions of

data into respective further buffers if the packet size is greater than the size of a given

buffer (*dividing the data packet into a first portion which is stored in the packet buffers,*

column 5, lines 47-51). Chang discloses storing data packet in buffers and transferring

further portions of the data packet to respective further buffers if the length of the data

packet is greater than the size of the packet buffers (*if the determination is negative,*

transmitting the second portion of the data packet without it having been stored in the

memory, column 5, lines 41-45), but fails to disclose storing the second portion into a

plurality of registers. Bremer discloses dividing packet into two portions and storing a

portion to registers (figure 4, element 150; column 7, lines 29-31). It would have been

obvious to one having ordinary skill in the art at the time the invention was made to

modify the system of Chang to implement the feature of storing a portion of data packet

into registers providing quicker access, as suggested in Bremer(column 2, lines 4-7), for

the benefit of improving buffer memory utilization.

Re claims 2 and 3, Chang discloses determining whether the packet size is greater

than the buffer size, where the difference is the threshold value (*the criterion for efficient*

storage is whether the length of the data packet is greater by more than a threshold than

an integer multiple of the size of the packet buffers, column 5, lines 41-45). The portion

corresponding to the threshold value is stored into a respective buffer (*a memory storing*

the threshold value).

Re claim 6, Chang discloses a networking device with an Ethernet interface (*an*

Ethernet switch, column 3, lines 64-66).

Response to Arguments

4.   Applicant's arguments filed on 12/03/2007 have been fully considered but are moot in

view of new ground of rejection.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For
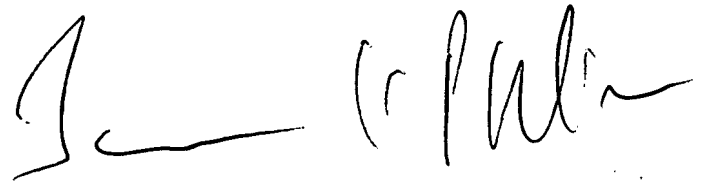
more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
12/20/2007

JAY K. PATEL
SUPERVISORY PATENT EXAMINER